1

SEQUENCE LISTING

<110> AMSON, ROBERT
    TELERMAN, ADAM

<120> SEQUENCES ASSOCIATED WITH CANCER SUPPRESSION AND WITH
    RESISTANCE TO THE H-1 PARVOVIRUS

<130> 065691/208

<140> 09/762,249
<141> 2001-02-05

<160> 15

<170> PatentIn Ver. 2.1

<210> 1
<211> 303
<212> DNA
<213> Homo sapiens

<220>
<223> TSAP9

<400> 1
tcggtcatag tctggatggg attcatgata tgaagcaaca gcatgtcata gaaaccttga 60
ttggcaaaaa gcaacagata tctcttgcaa cacaaatggt tagaatgatt ttgaagattg 120
atgacattcg taagcctgga gaatctgaag aatgaagaca ttgagaaaac tatgtagtaa 180
gatccacttc tgtgattaag taaatggatg tctcgtgatg cgtctacagt tatttattgt 240
tacatccttt tccagacact gtagatgcta taataaaaat agctgtttgg ttaaaaaaaa 300
aaa   303

<210> 2
<211> 1356
<212> DNA
<213> Homo sapiens

<220>
<223> TSAP10

<400> 2
tgagcagggc gacggcggcg gtggaacctg cggggctggg gcgccgccat gggcgcctgc 60
actgcactga ggacccggtg ccggaccggt gggcggcgac atgcagcagc tgaaccagct 120
gggcgcgcac gagttctcag ccctgacaga ggtgcttttc cacttcctaa ctgagccaaa 180
agaggtggaa agatttctgg ctcagctctc tgaatttgcc accaccaatc agatcagtct 240
tggctccctc agaagcatcg tgaaaagcct ccttctggtt ccaaatggtg ctttgaagaa 300
gagtctcaca gccaagcagg tccaggcgga tttcataact ctgggtctta gtgaggagaa 360
agccacttac ttttctgaaa agtggaagca gaatgctccc acccttgctc gatgggccat 420
aggtcagact ctgatgatta accagctcat agatatggag tggaaatttg gagtgacatc 480
tgggagcagc gaattggaga aagtgggaag tatatttta caactaaagt tggtggttaa 540
gaaaggaaat caaaccgaaa atgtgtatat agaattaacc ttgcctcagt tctacagctt 600
cctgcacgag atggagcgag tcagaaccag catggagtgt ttctgctgat ttctgtccct 660
gcatctcccc tggccccgtt ccctgccctc ctcccttccc tgggtgactg ctctgagagg 720
cacttcactc acaggcctgt gggatgctcc atggggccct gctggctcca tggggcccag 780
gtgcaaaggg tttctgaaaa acagcaggat taagtactga aagagcccaa cacaattacc 840
ctgtaaactc tctgttaggg caaccaccac cacctgtctt ccaggacaca tttttagata 900

```
ctctgacagg ccactgcatc tcagattcag gggagaaaat aagttgtcac ctcccttca   960
aagttccaga gtaaacaaat ggtgccatca ttcaagataa catgctgatc accctcctcc  1020
caaaaagcaa gagcttgttt atggctgagg aatcggcgga ttgtctgaat gacacatata  1080
cagagccccc acggatttct gcacactctg ggtctgtgct ggtggaacat tgccaatcag  1140
ttcttaatga ggcacctgtg tgtaaataca tgcttggtct tctctgcaga gaactgaggc  1200
taaactctgt ccctacttct ggttttgccc tgtcatgtcg taacgaggtg ggccttttga  1260
ggccatttta gtttgagttc gaaccaacca cctctgttgg ttagatgatg aataaaaagg  1320
ttctgaagaa aaaaaaaaaa aaaaaaaaaa aaaaaa                             1356
```

```
<210> 3
<211> 100
<212> DNA
<213> Homo sapiens

<220>
<223> TSAP11

<400> 3
tcggtcatag cggttccaag attagcttct actgcttcct gtagcttggc taatatactc   60
tgctttacag ctgatgatat ggtgttgtta aaaaaaaaaa                         100
```

```
<210> 4
<211> 467
<212> DNA
<213> Homo sapiens

<220>
<223> TSAP12

<400> 4
tcggtcatag taaattcagc atgaaagaga atattacaga aaagacagca gcagaagcat   60
tagcattatc taatatttat atatgttatc aacataacac agcagtaaaa ggtttaaatg  120
catatcaatg ggtaccatgt ctaaaaatta ctatagtacc tatttagtgt attggatatt  180
tttcttaaag agtgtttgct gtaactagaa cagcataata catgatttag tacagttaat  240
tcttattgat taaataatgt atttatgtac tgaagaaagt gaaaaggaga cagatatttt  300
ttgcttcatt ttgattccag atttaacatt taaatgaaga ttccaaagga ccatgacatg  360
tcattattta actgaaatgg gcttcaaaat atttaaaaga cggtatgatt tgtatctaaa  420
cagcaaggtg gcaccagata cacgtaatgc tactggccta tgaccga                467
```

```
<210> 5
<211> 1547
<212> DNA
<213> Homo sapiens

<220>
<223> TSAP13 PROTEASOME HOMOLOGUE

<400> 5
tttttttttt tttttttttt tttttttttaaca aagcagaggg gtttattata ggaacattct   60
caaactgcaa cggaaaagat gtccgtacag gtggatgggg atggagatcc acctcggagt  120
acacagactt caggggggcct cctgcctggc acgttctttc tctcccgtat cacctaagac  180
cctgagacct ccaccctctg caggagagac ccacaaagaa gcctcctccc tgtggcctgg  240
ctcccatcag ggacagtcct gtttttagag caagaacagt ctgtacttca gacaggatcc  300
caacccccac ccaaattcaa tgtcgaccgt ctgagcagcc agcttcattg ctgcaaacg   360
cctctctcag gtgagtcaaa ggagacacga cggggaacca gggggccta ggtgaggatg   420
```

3

```
tcatgggcct ggtgctccac cagcatctcc atgctcttca catccgtgca ccagaactcc 480
aggcggtcct tcattccctt gatctgttgc aaatccaaca ctcggggctg cacccaggtc 540
atgtggactc gtttgtccac ctcgtctata ctgcctttca ccagccccac cgaaagggcc 600
ttcatcacca gaagctccac ctcattcact gtgattttag cacttttggc aatttcttca 660
aaagtgagtt gtctgtgatt ggcaggtcgt gtgaaagtca tctccatgag gcacaacaac 720
tgaattttcc tcagaagctg ggcttcatta gctgctaaat caggctgctg gccccaggca 780
gtcttcagag tctggaaccg ctctacgttg ccactgttga aggcatagag ggtgtcaatc 840
agccactgcc ggtcagtatt cctcagggac tccagcacag ggtgcatgag gagttctcca 900
aagttaaaaa ctccctcgcc gagaagtcct gctagcccca gcgtgaaggc tctctcctgc 960
tgctcagaca ctggtagatc cttgatgtca acacagccca aaaaccgcag agcatctttg 1020
tagtaggacg cgtggtttcc gattgtttga tagtatttac tggagagatc atagaaacga 1080
ctgtgaaccg atgtcacacc aggaaggttg ttgagcattt cttcaacatc ttcaattgtt 1140
tcctttgtaa cctgtaggtc cccgatgttt aattttagag ctccaattgc tgttttacac 1200
aggatcactg cctcatcact acttttcacc ttctcacgag tcttttccag aaaagtaaga 1260
gccacattag gatcagtcat ctgtctaact acgtgaagaa tgatttccac gagggacaga 1320
ggattcaccc tgtgttcaaa ttcactgata aagttttcat aaagcttaat gagaccatct 1380
ccttgggcaa agcacggatc ctgcacaaaa tcaagcacct gaagtgtcag ctgatgccac 1440
aacttcttcg tgtagagctc ctccagacgg tgccacacag cgggctgccc gggcccggag 1500
ctctggctct gctgtaggaa gcccggtacg tccttcatga cagcagg            1547
```

```
<210> 6
<211> 102
<212> DNA
<213> Homo sapiens

<220>
<223> TSAP14

<400> 6
ggaaccaatc ctaaagaata ttcttacata taataaagaa ttcccatttg atgttcagcc 60
tgtcccatta agaagaattt tggcacctgg taaaaaaaaa aa                  102
```

```
<210> 7
<211> 1825
<212> DNA
<213> Homo sapiens

<220>
<223> TSAP15

<400> 7
tcggcctttc acctcttcac ttatccttag tcccagtagc caggatacct gatggccacg 60
tgtgccttgg ccacgggagg ctgctgagat tggccacgtg gctgggctgg gtggtggcct 120
cactctccca cagagctgga aatggggggt gggggacaga ttcttacgga aattttttta 180
cctgacttgc tatgaaaaaa ctcatcacac aagaagagaa acagtaacct cactttgaaa 240
attagctcca ctcaagacta gtccacgaac gagacccgcc ttttctacac aggatccaag 300
ctcacgagaa gcagccagag tgccccgcct ccgccggctc tggtctgcca ttcgccagtg 360
cagggatctg gcatggacca gatgtggcga atggcagcac agcgcggtgg ctgggtctgc 420
acactggcct ctgcagccag atttctatat tgggagtttt ttaaaaagac atttcatagc 480
caacaagaat cagtagaagt gctgggagca gcagctgggg aagctgccgc ccacgggctc 540
tgccccttcc agctggagcc gcccgtgcct ccaggggcca agaggatgat gtcgtggcct 600
ccattctcgt ttctatgcag ccccatagtc caaggacacc cagtccacat ctaccatata 660
gcaagtttag taagggaagg cagcatacgt cccagggaca gtgggtttgg atctgtctag 720
aacagcggtt tgtggctgtg cccagctcc gagagtgata tttgctctgg taggtgaggg 780
cctgagggta catttctcca cctgtgcccc ctcatgttca cagaggattt cagcagctgc 840
aactgcgcac gccaggtggg gaagggtggg ggtgggcctg gttgccccat gttaggaaat 900
```

4

```
cactaccagt caggtggggc tggggctggg tggacaggat caggattccc ttgaaagccc 960
aggcagggtg agcagtccca gtggtcctag tgccgcatca gatccaggtg ggtgagggca 1020
ggaggccatg cggaggagcc gtggatctgc ccacacatag gctactggaa tagtttaacc 1080
cagcaacttt cctttttata aaacaacaaa tcggttcaac tctgtctgca aattaacagc 1140
tgaacacctg caactgaaat gttttttgat ccgacgtact gaaatacgga agtcatgctc 1200
ttcccaccct ccacccacca gagtggaacc cgctgcaaaa tccccagcct taattcttgc 1260
ttcaggaccc agaccggtgt cttgctctag ggcaacccag ggcagagggg ccaggtctgc 1320
ccagcgttta ccactgctgt caagcacagc ccttggcacc atacgggcca tcctcagtga 1380
ggcagccccc cataggcttc cgcaagctct ggtcccgaag aggctgtgcg agcccttccc 1440
ggccctcccc aggccccccg ccccctcctc tgcctgctgc gtggaggcag ccatgggaag 1500
gagcccaggg gagctggcct gggggagcga agcccatgtt cgcttcctga cttagagctg 1560
ggggggggtgg ggggtggggc ttgttcccct gcagtatctg ttctgtgaag tttgttaaat 1620
gtaaggaaag cttaaattct tgtatcttta aaagagaaaa tcttatttaa ccctttttgtg 1680
ttctagattt acttacacac atagcctaga gctcagtttt agttttaaca ttgtgaaaat 1740
attaaaagaa tcttgtaact ttattctttt ttctcctgct gaaaaaaaaa attaaaccaa 1800
tcgtatgaaa aaaaaaaaa aaaaa                                         1825


<210> 8
<211> 90
<212> DNA
<213> Homo sapiens


<220>
<223> TSAP16


<400> 8
tggattggtc caggattggg gttttgctag tccatagcaa ttcgaagggc agtgggctag 60
tgttatgaga atattggcaa aaaaaaaaa                                     90


<210> 9
<211> 131
<212> DNA
<213> Homo sapiens


<220>
<223> TSAP17


<400> 9
ctgcttgatg taggagggat taagttagta tttcccgtat cgaccaagac aaaattacaa 60
tatacgcata acaaagacaa acaccagtta cttggctcaa tatccaagtt ttaacctagc 120
aaaaaaaaaa a                                                        131


<210> 10
<211> 121
<212> DNA
<213> Homo sapiens


<220>
<223> TSAP18


<400> 10
ggaaccaatc ccaacacaac tggattctac tgaaattacc acatatttga ggtccacaag 60
cacaagtata gatctaatgc aaactgggct cagattagca gatccatgcc aaaaaaaaaa 120
a                                                                   121
```

```
<210> 11
<211> 893
<212> DNA
<213> Homo sapiens

<220>
<223> TSAP19

<400> 11
atggagggcc acatctgcca gagcctggag tctgcgaagg ccgggacccg gttccccggc  60
ccacagtggg ggtgtgcaaa cccgagagaa ctgggttgca aattcgtgaa gaatcagcat  120
catgtttggc agctgagtat tggagccagg agcctgccat gaggtttga gaacagagtg  180
ctgtttaga gctggcagca gcatctcagc ccaagagaag gttatattcc cagaggatgt  240
cagtcccaag gaccagtagc tgccatcagt ttggattctg aaaactaact ggcatcaaca  300
ctgggtgtag aaacatgctt gccttatgta tcagaggaca tgctcagcag atccaagaga  360
tatatttggc aacttttct agaaaaggca cattgggtat cattcattac attcttgagt  420
ttttttgggt ttttttttt tttttgaga cagtcttgct gtattgccca ggctggagtg  480
tggtggcaca atcacagctc attgcatcct caatcaccca ggcctaagca atcctcccac  540
cttgtagctg ggactacagc tcacagcaca cctggctaaa attttttttt tgttgagacg  600
gattctctat gttgcccagg ctggtctcag gctcctgggc tcagatggtc ctcctgcctc  660
agcttccaaa ggcacaggcc aagttgtagc tttgtccctt gccatcatgc ccaacaagag  720
gttctatacc ttttaatgaa ttgactttca taaattggtt atgttggtgg gcaagttctt  780
taagctggaa attgtaaatt cctcctgaaa tgttttttca tgcagttacc atgaactaat  840
actacaataa aggatggtct ggggtgtcaa aaaaaaaaaa aaaaaaaaaa aaa           893


<210> 12
<211> 151
<212> DNA
<213> Homo sapiens

<220>
<223> TSAP20

<400> 12
gatctgactg tagggactat attcattact gctggactat gctgctttcc ccaacccccct  60
aggattttaa aaatagcacg ctgcacttga aacaggggaa gacactgtat aacatccaaa  120
tgttcttctt ccctagaggc caaaaaaaaa a                                  151


<210> 13
<211> 1295
<212> DNA
<213> Homo sapiens

<220>
<223> TSAP21 SNARE HOMOLOGUE

<400> 13
atccagcgcc agctggagat catgggcaag gaagtctcgg gcgaccagat cgaggacatg  60
ttcgagcagg gtaagtggga cgtgtttcc gagaacttgc tggccgacgt gaagggcgcg  120
cgggccgccc tcaacgagat cgagagccgc caccgcgaac tgctgcgcct ggagagccgc  180
atccgcgacg tacacgagct cttcttgcag atggcggtgc tggtggagaa gcaggccgac  240
accctgaacg tcatcgagct caacgtacaa aagacggtcg actacaccgg ccaggccaag  300
gcgcaggtgc ggaaggccgt gcagtacgag gagaagaacc cctgccggac cctctgctgc  360
ttctgctgtc cctgcctcaa gtagcaggcc ggcccgggcc gccaccgccc atcccagacc  420
atggagcgcg ctgggaagga cgtcaccaaa gccgggagct ctgccctgca gggagttgcc  480
```

```
ccaacccttt ccggaactca gtctttagaa aagaaacgcc aggttcaaga attgcaaacc 540
agcctgtgct tggaaagatg gttagttgat accgtccgat gattcttcag taaagataga 600
ttcccacaaa gttgtgcaat gtcattatat gacaccttgc actcttaccg tcttgacaga 660
agccaagtaa ggaactgaag ttgtatctga ctgtagggtg aatgtctgag gcctgcctcc 720
taataaagac tcaaggagga agtcaattgg gcatctgcta atagaatgaa ctcatgatgg 780
aaacttcagt tcatttactt tgtccctgaa aattccctgg ttctgttcca ttttgagcga 840
aattggcctt gggaaaaacc acgttcttcc tttccgattc ttcatccggt ctacggctat 900
gcaattcctc cccaaatata gatcttattt ctgctcattt cccctactta ttaaaatcac 960
accaaacact tactattttc ttatctcttt cacttttttaa atatctttca ccaggttata 1020
ttttggtatt attttttccaa acatttttaa gcactgaata tcgaacaagc actcaaattg 1080
aagtatcagt catgttttgt gtatttttcg ctgataaaaa ttatttaaca tttatatttt 1140
tacttgatta catatgcaca tgtatgtaaa tgtaaaatac taatattcac taatatatgt 1200
acataatgat caattggttt aacttctttt atgtaagtat ggtatataaa tttcaagacg 1260
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa                              1295
```

```
<210> 14
<211> 2242
<212> DNA
<213> Homo sapiens

<220>
<223> TSAP22

<400> 14
agggctcgag cggccgcccg ggcaggttgt gttcttaatt tgcttttccc ttgtgagtcc 60
tgcatcattt gaaaatgtcc atgcaaagtg gtatcctgag gtgcggcacc actgtcccaa 120
cactcccatc atcctagtgg gaactaaact tgatcttagg gatgataaag acacgatcga 180
gaaactgaag gagaagaagc tgactcccat cacctatccg cagggtctag ccatggctaa 240
ggagattggt atggaatcct gtgttttttcc tcctccttgt acctctttta ttgtagtgac 300
agactggagt ccagtctggg aaaggagggt gtgtgtctcc cactcagggc ctggtgtact 360
cttggggaac cagctggcaa ggccctctgg tcttaacgt cagcgttgga aggtggaagc 420
agggctggga gccggcagaa ggcgcccggg ccccaggagc cgcctcccgc tggtggtgtg 480
atcagaagag agtgggggtcg agtgtacatt gccgtgtggt cgtgtttcct gtaggtgctg 540
taaaatacct ggagtgctcg cgctcacac agcgaggcct caagacagtg tttgacgaag 600
cgatccgagc agtcctctgc ccgcctcccg tgaagaagag gaagagaaaa tgcctgctgt 660
tgtaaatgtc tcagcccctc gttcttggtc ctgtcccttg gaacctttgt acgctttgct 720
caaaaaaaaa caaaaaaaag aaaaagtcg caaaaaaaaa aaacaacggt ggagccttcg 780
cactcaatgc caacttttttg ttacagatta attttttccat aaaaccattt tttgaaccaa 840
tcagtaattt taaggttttg tttgttctaa atgtaagagt tcagactcac attctattaa 900
aatttagccc taaaatgaca agccttctta aagccttatt tttcaaaagc cccccccca 960
ttcttgttca gattaagagt tgccaaaata ccttctgaac tacactgcat tgttgtgccg 1020
agaacaccga gcactgaact ttgcaaagac cttcgtcttt gagaagacgg tagcttctgc 1080
agttaggagg tgcagacact tgctctccta tgtagttctc agatgcgtaa agcagaacag 1140
cctcccgaat gaagcgttgc cattgaactc accagtgagt tagcagcacg tgttcccgac 1200
ataacattgt actgtaatgg agtgagcgta gcagctcagc tctttggatc agtctttgtg 1260
atttcatagc gagtttttctg accagctttt gcggagattt tgaacagaac tgctatttcc 1320
tctaatgaag aattctgttt agctgtgggt gtgccgggtg gggtgtgtg tgatcaaagga 1380
caaagacagt attttgacaa aatacgaagt ggagatttac actacattgt acaaggaatg 1440
aaagtgtcac gggtaaaaac tctaaaaggt taatttctgt caaatgcagt agatgatgaa 1500
agaaaggttg gtattatcag gaaatgtttt cttaagcttt tcctttctct tacacctgcc 1560
atgcctcccc aaattgggca tttaattcat ctttaaactg gttgttctgt tagtcgctaa 1620
cttagtaagt gcttttctta tagaacccct tctgactgag caatatgcct ccttgtatta 1680
taaaatcttt ctgataatgc attagaaggt ttttttgtcg attagtaaaa gtgctttcca 1740
tgttactttta ttcagagcta ataagtgctt tccttagttt tctagtaact aggtgtaaaa 1800
atcatgtgtt gcagctttat agttttttaaa atattttaga taattcttaa actatgaacc 1860
ttcttaacat cactgtcttg ccagattacc gacactgtca cttgaccaat actgaccctc 1920
tttacctcgc ccacgcggac acacgcctcc tggtagtcgc tttgcctatt gatggttcct 1980
```

```
ttgggtctgt gaggttctgt aaactggtgc tagtgctgac gatgttctgt acaacttaac 2040
tcactggcga aatacaggg tgggacccct cagccactac aacagaattt tttaaattgc 2100
cagttgcaaa attgtggagt gttttttacat tgatcttttg ctaatgcaat tagcattatg 2160
ttttgcatgt atgacttaat aaatccttga atcataaaaa aaaaaaaaaa aaaaaaaaaa 2220
aaaaaaagcg gccgctgaaa cc                                          2242
```

<210> 15
<211> 144
<212> DNA
<213> Homo sapiens

<220>
<223> TSIP3

<400> 15
```
ggaaccaatc caaatgccca tcaatgatag actagataaa gaaaatatag tacatatgca 60
ccatgtaata ctatgcagcc gtaaaaaaaa aaaaaaaaa agacagacaa ggccaaggcc 120
aggcacggtg ggtaaaaaaa aaaa                                        144
```